department of science and innovation socio economic development,
-1 .programme administration technology innovation international
cooperation

Gov, city power and St peace college Programme, exposition science

<u>-2.programme research development support :</u>

St peace college lecture and learner development under planning.

Department high Education vs saqa vs qcto,vs seta research resolved time table examination Assessment police, Portfolio documents systems integrity police academic,

- -2.1. purpose: innovation practical and theoretical. science and technology science national trade factor outcome time table trading examination and qualifition framework national diploma n engineering and council trade sector authority, innovation system outcomes empower system subject entry phase learning and lecture teach science exhibition generation technology Assessment police, and Engineering assessment trade machine and trade control system process project system control evaluation system
- 2.1.2 knowledge: innovation practical and theoretical trade technology electrical engineering Electrotechnology empower value are recreation orientation maximum, value tax, return studies and Examine electro technology engineering time table assessment Completed research laniaries system technology value entry lecture exam nated vs. saqa vs qcto linearism system electro technology power fundamental job duty job maximum, job value minimum trade operational, task minim component system,
- -Job duty cycle system value: learner lecture framework qualifition and occupation trade job value salary resource human maximum fiscality minimum technology components system: sciences natural system investigation design minimum agreement value job trade module,task minimum, task minimum service require trading sectors and maximum sectoral electrotechnology trading components Value financial tax system:

## 2.2.3: strategies: strategies phasing module tasking curriculum system implantation levels grading lecture objectivity:

The trading lecture and learning system engineering science electrical subject and technology electrical ,electro technology ,education technology System outcome , trading education technology systems power factor demand system education , efficiency system assignment power objectivity module task , maximize inventories psychopedagogie metric system month week of observations learner form test assessment assignment control tpm

maintence meeting product control technology goal.

- -1.2.3.4: development humain generation: system teaches sector organisations technology rate value maximum rate demand factor admnise value ask required report system value.
- -1.2.5.component: trading lecture used company manufacture relate system Industrial Education system intelligence management system information ,education computing control system switch and material support command disposition component manufacturers

  Numerical time table framework regulatory Education trade relate handbook guideline information and orientation integrative system component handbook relate maintenance update , upgrade system -1.2.6: basic science infrastructure: implantation of research innovation mission equipment

College equipment framework theory practical lab workshop workplace implantation department gov system ,more

Inovation,tax incentives,, Meeting request

## -National energie regulatory of South Africa mandatory electricity piped, invitation me minister tribunal,,

Meeting electrical conformance board design installer regulatority Cox competition b

Meeting salt .dmrg stick ,sale revenue power plant fuel used national treasure sars department of energy mandatory ensure private sector participr in power generation ,

Meet national skill fund,, national research fund ,, Visa permit partment of science and innovation socio economic development,

-1 .programme administration technology innovation international cooperation Gov , city power and St peace college

Programe, exposition science

-2.programme research development support :

St peace college lecture and learner development under planing. Department high Education vs saqa vs qcto,vs seta research resolved time table examination Assessment police, Portofilio documents systeme integrity police academic.

- -2.1. purpose: inovation practical and theoretical. science and technology science national trade factor outcome time table trading examination and qualifition framework national diploma n engineering and council trade sector authority, inovation system outcomes empower system subject entry phase learning and lecture teach science exhibition generation technology Assessment police, and Engineering assessment trade machine and trade control system process project, system, controle
- 2.1.2 knowledge: inovation practical and theoretical trade technology electrical engineering Electrotechnology empower value are recreation orientation maximum, value tax, return studies and

Examin electrotechnology engineering time table assessment



	Completed research linearise system technology value entry lecture exam nated vs saqa vs qcto linearise system electrotechnology power fundamental job duty job maximum,job value minimum trade operational,task minim component system,
trad com agre	duty cycle system value: learner lecture framework qualifition and occupa e job value salary resource humain maximum fiscality minimum technolog ponents system: sciences natural system investigation design minimum eement value job trade module,task minimum,task minimum service requi ing sectors and maximum sectoral electrotechnology trading components
Va	alue financial tax system:
	2.3: strategies: strategies phasing module tasking circulum system aplentation levels grading lecture
ol	ojectivity:
Th	e trading lecture and learning system engineering science electrical subje d technology electrical ,electrotechnology ,education technology

-1.2.3.4: development humain generation : system teach sector organisations technology rate value maximum rate demand factor admnise value ask required report system value.
-1.2.5.component: trading lecture used campagny manufacture relate system Industrial Education system intelligence management system information ,education computing control system switch and material support command disposition component manufacturers
Numerical time table framework regulatority Education trade relate handbook
-1.2.6: basic scieny infractuture: implentation of research inovation mission equipment
College equipment framework theory practical lab workshop workplace
Inovation,tax incentives,,
Meeting request
National energie regulatority of South Africa mandatory electricity piped , invitation
Meeting electrical conformance board design installer regulatority Cox competition b
Meeting salt .dmrg stick ,sale revenue npower plant fuel used national treasure sars department of energy mandatory ensure private sector participr in power
Visa permit

## engineering, systems engineering,

.project			

## 1..project

-High school theory practice week grade

Theory labo work shop high school,

- university theory practice workshop lab
  - instituts case studies research
  - -college workshop workplace theory compagny workshop experience career

: projection design analyse			
-Project Principe design			
-project diagram laballed sche			
-Projects diagrams power circuit			
-Project commander control wa			
-Project experience measure te			
.diagramme algorigramme logigrame organigrame ,diagrammed sequential ,			
Concept design planogramme, algorithm . G			

purpose engineering,

1.initial sequence implentation				
1. purpose of plan. Dhet yes				
key switch contact				
-aim of plan yes,				
-objectivity plan yes				
- key delivery area				
2.implementation monitoring of teaching				
purpose yes				
- trade test QCTO license yes ,let /lep				
3purpose.				
-4 purpose and evaluation saqa log				
- 5where appropriate , undertake manufacture maintence pane				

7

- 7.purpose dhet education career bridge stabi base phase job paychomoty yes
- -8 dhet ,vs sasseta accreditation Assessment mil STD , safety training merseta required gasst .
- -8.2
- 9. purpose manufacture relate theory practical componey equipment trade ton max chain load diameter trade code objy credit theory vs practice test manufacture yes,
- -10.purpose dhet national electronics fundamental engineering level and License trade engineering.

Compare low test methode notion Hopkins

- -Purpose wiring electric wire way premise protection line fire
- -10.2 purpose engineering science module completed algebraic linearing foindamental system process fabric y yes,
- -engineering science theory fundamental research step y learner plan lecture plan

11.pupose	instrument measure trade engineering e measure control lab ,
	rs saqa practical work experience lab workshop workplace Industrial ose machine manufacturers
-13. Dhet r	ncv nated lect vs saqa subject electrical principle practice , nqf level,
-	dhet et vs seta sasseta skill programme management s,securtgradd assess threat for installation ,
•	student information system,stui managy system revolutionized, and cost effey interactive,collect.
-1intialisat	cion : stan
•	ntation circulum knowledge circulum policy engineering planing product ent contractual agreement e registerer and consultant e electrique . Yes
	ask factor career outcome transition phase learner phase exhibition phases inning. Yes
	material and equipment scientific guidelines assess formation Summative s assessment learner and teacher time e. Yes
	antecht and minint what is technology wath are day of mining how is nology energy. Yes

1.conte t engineering electrical career project Project officer outcom e legislation government engineering gov city .yes
2.2 abstract job work career category job skills.yes
3. Entry Engineering electrical trade infractuture implentation support. Yes
4. Purpose asssessor .vyes
4.1 case study how make calculation for a distribution substation.
Yes
- 5.requirement substation , 5 purpose and required , advance basic.
Yes
6. Requirements power station and central system appliances TV reliable ,
Yes
8.requirement Dimensioning workplace.
Yes
8.2 fonctionalite principal .
Note cacul office , bureau studi ,sabs ,ECB,realii calcul test
Yes
9.reauired domain application distribution network .
Yes
1
Yes
1
Y <u>es</u>
1
power requirements.
Yes
16. Required functions function.
Yes

Requirements flow down from level1.syst efinition process ,1.1.1stskehold expecta olution	em design processes1.1 requirements tion definition yes1.1.3technical
Igori <del>arammo logiaram</del>	
Key Ιστκ,,	
Equation key equation lock omparable logic	
$1.1 \times +k.2.1+kn= k implentation$	
1.1x+k.2.1+kn=k.implementation	

Add. Method value :	
Substitute value: key	
Compare value :	
Step operator	
Way key switch	
K.1.	
Outcome, education technology techno electrique, electrotechnology EIC	logy
EIC : electrotechnology : electrical inter	national commissioner rules ,
Commissioner electrical international, colligthning,, system international physic,	
Construction electric association ,inform	nation rules
<u>Labels,</u>	
Power empower : fundamental system, operationel step task project:	process implentation phase
Schematic diagram: principal game	
Technologie ,supplies power purpose posystem control process Project fabric.	ower : rules attorney: machine
- power commissioning code standar	
Value nominal operationel work :	
-value minimal operationel work labour:	
-value value cut operationel ,	

Value selected , choice basic advan- contacting value outcom technologi	ced purpose diagram design Key lock e are Cree.
-principle schematic: schedule	
Orientation projection flow share lin horizontal vertical team line flow	e manager system process purpose
-Purpose purpose : 1.1,,1.2,,1.3,,1	
5 operationel task ,logic diagram orientation planing supervisor	logigram
- design organigrame:	
Way key switch organisation superv schedule schematic,4 way switch s	•
-Organigrame schematic blocks,con	vert info
,,Organigrame board metering , logi distribution system design .	igram , a
- equation logic : state logic ,0or 1,	voltage 2
F1=0, F2=0,F3=0, circuit breaker	МСВ
MCB1=0,MCB2=0,MCB=3, Line 1,2,	3 state =
F1+F2+F3, ,metering kWh=0 , kva	rh=0,KV
Circuit breaker ,over load rcdbo $=0$ ,	
Db box system db=0, operationel to	echnologi
Equation logic	
Db= F1.+MCB+kvar+kwh	
Power supply,	
Db = lights+ outlet socket+guyzer	+
Sw1=1 light = 1, $sw2=1$ , $sw3=1$ , $sw3=1$	N 6, ,SW

- organisation	
dol ,reverse. Load.	
Km1= F1+so+(S1+km1). Motor	
Km2=F2+s0(S2+km2)	
K1m = F1 + so(S1 + km1).km2	
K2m=f2+so(S2+km2).km1	
K start= F1+so(S1+km1).k d	
K delta=F2+so(S1+km2).ks	
N UEILA-FZTSU(SITNIIIZ).NS	
On line generator ,,transformer	_
-	
transmitters	
Kgenerator =F1+so(S1+kg1).kg	2
Kgenerator=F2+so(s2+kg2).kg.2	2
Transformer = $F$ ,=,1,( $Q$ +break+ $Q$	Q).(Q+break+Q)+transfo + Q+Brak+Q+
-Algorigramme: operationel syste	em
Initial f1.startF1=1 yes , or not	initialisation,F2=1,yes ,or eg
Initiation , f $3=1$ , yes or equal=0 i	initial ,
.,SW = 1:,yes ,,km = 1, yes,kg=1	I yes step or reininitialisatiin .
Db box = $,1$ ,,D's= $,1$ activation a	itstem

End	procedure	,,
-----	-----------	----

Logigramme algebraic boolen ,			
Coventer			
Binaire 2. 0,1,decimal base 10, he	xadecimal 16,		
Input / out put logic byt			
Sw1=0,sw2=0,sw3=0,SW=0/000			
Base 10,,base 16			
S1=0,S2=0,S3=0, S4=0,=0/0000			
Km=0,km=0,km=0,/0000			
Kg=0,kg=0,km=0,Km=0/0000			
,			
Fortran			
CLS program,PLC			
10.Print sw1			
20.Print sw2			
30.print sw3			
40.print sw4			

```
50 print S1,
60 print S2
70 print S3
80 print s4
90 print km
100 .print kg
110.print t

Input = "sw1", sw2,sw3,sw4,Se
Input = S1, S2,S4,S4,,
Input = km,
Input = kg
If "sw1"= 1, I =
Else
```

Show

String

Robotic research operationel

Algo pin address value scater position

\_-

-

Analyse design ,analyse circuit.	
Sequence , circulum purpose	
- call key display sw1,sw2,sw3,sw4	
-call and recall ,db ,Q	
- call and recall current sw1,sw2,sw4	
- call way key	
+ Call km,call kg ,call.	
-Module call and recall sw1 task ,call task task $sw1 = 0$ , $sw1=0$ ,	,sw2 ,call task sw1 required contact
Task km	
Call pression pressosta kp,call manosta ,cal	ll detector can,termomete kt kelay
Current exp	
-Module calculator operationel, call task ,c substraction , multiplication,division task	call , sw1 operationel logic add,
Module inverter , module multiplex ,	
Integration circuit module switch	
,	
Call pression under pressure,	
Call , module calcule step task ,S2,S2,s3s4	sequence pression selector
Call pin address ,transistor thyristor coman	de task,

,Display module.. operationel system call recall task ,multi task multi use, mmono task, call windows,, operating system call motor lecture current disc tape magnetic electromagnetic memory card , reader card call ,sub system

Call module matrices



